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## Appendix B

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# Obstacle Numbering, Reporting, Recording, and Tracking

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This appendix describes the obstacle numbering system and the requirements for obstacle reporting and recording.

### OBSTACLE NUMBERING

The obstacle numbering system shown in *Table B-1, page B-2*, consists of 11 alphanumeric characters and an obstacle status symbol character. This number is compatible with the Tactical Engineer Command and Control System (TECCS) that augments the Maneuver Control System (MCS). An obstacle number provides the following information concerning an individual obstacle:

- HQ that established the obstacle zone in which the obstacle is located.
- Obstacle zone designation (if any).
- Obstacle belt designation within the obstacle zone (if any).
- Obstacle group designation within the obstacle belt.
- Individual obstacle type.
- Individual obstacle number.
- Obstacle status.

If units do not use obstacle zones and belts, or if the HQ directs obstacles outside an obstacle zone or belt, an asterisk is used in place of the obstacle zone or belt designator.

The designation for the HQ is a letter followed by three numbers. For example, XVII Corps is shown as Z017; 23d Armored Division is shown as A023; and the 103d Airborne Division is shown as I103.

Obstacle zones are indicated by a single letter starting with “A” and continuing in sequence. Obstacle Zone A in XVII Corps is distinguished from Obstacle Zone A in 77th ID by the HQ designation (Z017-A versus I077-A). The second obstacle zone in 77th ID would be Obstacle Zone B (I077-B).

Obstacle belts are indicated with a single digit following the obstacle zone designator starting with “1” and continuing in sequence. For example, the first obstacle belt in Obstacle Zone C of the 5th Cavalry Division is shown as C005-C1.

Obstacle groups are depicted by a single letter starting with “A” and continuing in sequence. For example, the first obstacle group in Obstacle Belt 2 of Obstacle Zone B in the 77th ID is I077-B2A.

The individual obstacle type is expressed by one or two letters as shown in *Table B-2, pages B-3 and B-4*. For example, AD obstacles in I077-B2A are shown as I077-B2A-AD. Standard block minefield in the same group are shown as I077-B2A-MB.

Table B-1. Obstacle numbers.

Character	Description
1 through 4	Alphanumeric descriptions of the HQ type and numerical designation that established the obstacle zone. Character 1 designates the unit type with a letter (A, armor division; C, cavalry division; I, infantry division; and Z, corps).
5	Letter indicating the obstacle zone. If there is no obstacle zone, an asterisk is used.
6	Number indicating the belt number in the obstacle zone. If there is no belt, an asterisk is used.
7	Letter indicating the group in the obstacle belt.
8 and 9	Letters indicating the obstacle type (see <i>Table B-2, pages B-3 and B-4</i> ).
10 and 11	Two numbers indicating the obstacle number in the group.
12	One of four characters indicating the obstacle status: <ul style="list-style-type: none"> <li>• / (slash) = planned obstacle.</li> <li>• - (dash) = obstacle being prepared.</li> <li>• + (plus) = prepared, but not executed obstacle. (The + is for reserve demolition targets and may indicate a readiness state of safe or armed.)</li> <li>• x = executed or completed obstacle.</li> </ul>

The individual obstacles in an obstacle group are indicated by a two-digit number starting with "01" and continuing in sequence. Therefore, the first block minefield in obstacle group I077-B2A is I077-B2A-MB01. The second block minefield in the group is I077-B2A-MB02. If the obstacle group consists of a single obstacle, it is also shown as I077-B2A-MB01.

If the corps or division orders the emplacement of an obstacle group outside an obstacle zone, then there is no obstacle zone or belt designator. Instead, units replace the obstacle zone and belt designators with asterisks (\*). For example, if XVII Corps orders the demolition of a bridge (abutment only) as a corps reserve obstacle and this is the first such obstacle, then the obstacle is indicated as Z017-\*\*A-BA01. If the 1st Brigade, 77th ID, orders an ADAM/RAAM scatterable minefield in Obstacle Zone B and outside all obstacle belts, the designation is I077-B\*A-SF01.

The obstacle status symbol is the last character of the obstacle number. The status symbol shows whether the obstacle is—

- Planned (/)
- Being prepared (-).
- Prepared, but not executed (+).
- Executed or completed (x).

For example, if the first of the block minefield discussed in the previous paragraph is completed, the obstacle number is I077-B2A-MB01X. If the corps reserve obstacle discussed in the previous paragraph is prepared, the obstacle number is Z017-\*\*A-BA01(+).

Obstacle numbering for protective obstacles may require procedures that vary slightly from those described. Units should report protective obstacles; however, identifying the individual obstacles is difficult using the obstacle numbering guidelines without guidance from the higher HQ. A technique is for

Table B-2. Obstacle type abbreviations.

M—Minefield/Munition Field		W—Wire Obstacle	
MB	Block	WA	Double-apron
MC	Chemical	WC	Concertina
MD	Disrupt	WF	Tanglefoot
MF	Fix	WG	General-purpose, barbed tape
MH	Hasty protective	WN	Nonstandard
MN	Nonstandard	WR	Roadblock
MO	Point	WT	Triple-standard
MP	Protective	S—Scatterable Minefield/Munition Field	
MQ	Nuisance	SB	Gator
MS	Standard-pattern	SF	ADAM and RAAM
MT	Turn	SM	MOPMS
MU	Dummy/decoy	SV	Volcano
A—Miscellaneous		SW	Scatterable mines (generic)
AB	Abatis	H—Hand-Emplaced Munitions	
AC	Chemical by explosives	HC	Claymore
AD	AT ditch	HH	Hornet/WAM
AF	Thermobaric or flame	HO	Other
AH	Log hurdle	HS	SLAM
AL	Log crib or log obstacle	I—Improvised Explosive Devices	
AM	Movable obstacle (car, bus)	ID	Directional, special-purpose explosive hazard
AN	Expedient nonstandard obstacle		
AP	Post obstacle (hedgehog, tetrahedron)	IO	Omnidirectional, special-purpose explosive hazard
AR	Rubble		

Table B-2. Obstacle type abbreviations (continued).

AT	AT ditch with AT mines	B—Bridge Demolition	
AW	Earthwork (berms, parapets, dunes, pits)	BA	Abutment
		BC	Abutment and span
T—Booby Traps		BS	Span
TA	Booby-trapped area	R—Road Crater	
TB	Booby-trapped bodies	RD	Deliberate
TE	Booby-trapped equipment	RH	Hasty
TM	Booby-trapped material	RM	Mined
TP	Booby-trapped passage/ confined space	U—Unexploded Ordnance	
		UC	Chemical UXO hazard area
TS	Booby-trapped structure	UH	UXO hazard area
TV	Booby-trapped vehicle	UN	Nuclear hazard area

units to assign default obstacle zone, belt, and group designators for protective obstacles outside control measures. For example, 77th ID assigns W, X, Y, and Z (it is unlikely that the division will ever have enough actual obstacle zones to require these letters) as default obstacle zone designators for subordinate units as follows:

- W – 1st Brigade.
- X – 2d Brigade.
- Y – 3d Brigade.
- Z – Division rear.

The 1st Brigade assigns default obstacle belts W1, W2, and W3 to TF 1-2, TF 2-3, and TF 3-4 respectively. TF 1-2 then assigns default obstacle group designators W1A, W1B, W1C, and W1D to its four company teams. Protective obstacles can now be

linked directly to specific company teams. The first protective minefield that Team A, TF 1-2 emplaces has the obstacle number I077-W1A-MP01X.

## OBSTACLE REPORTING

An obstacle report is an oral, electronic, or written communication concerning obstacle activities. The local command specifies the report format. The emplacing unit commander submits it through operational channels to the G3/S3 of the authorizing HQ. The HQ integrates the report with terrain intelligence and disseminates it with tactical intelligence. Units send these reports by the fastest, most secure means available. Failure to disseminate obstacle information rapidly could result in friendly

casualties. *Figure B-1, page B-6*, summarizes the obstacle report flow at the corps level and below.

Units must submit the following reports for every obstacle (with exceptions noted):

- Report of intention.
- Report of initiation.
- Report of completion.

### REPORT OF INTENTION

The use of a report of intention depends on the use of obstacle-control measures or an OPLAN.

#### Obstacle-Control Measures

If the higher HQ has designated obstacle-control measures, such as obstacle zones or belts, units do not need to submit the report of intention. The authorization to install obstacles is given when the higher HQ establishes the obstacle-control measure.

Units must submit a report of intention for every obstacle if the higher HQ did not establish obstacle-control measures. Units must submit a report of intention to notify their higher HQ before planning to emplace an obstacle.

#### Operation Plan

Conventional obstacles that are part of an OPLAN approved by the authorizing commander do not require a report of intention because inclusion in an OPLAN implies an intention to emplace obstacles.

The report of intention doubles as a request when units initiate it at levels below emplacement authority. The report includes the following:

- Tactical purpose of the obstacle.
- Estimated number and type of mines to be emplaced.
- Location of obstacle.
- Proposed start and completion times.
- Type of obstacle.

- Placement of mines (surface-laid or buried).
- Use of AHDs on mines, if applicable.
- Location and width of lanes and gaps and how they are marked.

### REPORT OF INITIATION

A report of initiation is mandatory. It informs higher HQ that emplacement has begun and that the area is no longer safe for friendly movement and maneuver. The report specifies the time that emplacement began and identifies the location and target numbers of obstacles. The scatterable mine warning (SCATMINWARN) notifies affected units that SCATMINES will be emplaced. The SCATMINWARN report provides affected units with the necessary warning to plan and execute their operations. Units send the report before or immediately after they have emplaced mines. *Figure B-2, page B-7*, shows a sample of the SCATMINWARN format.

### REPORT OF COMPLETION

A report of completion is the report from the actual emplacing unit, through channels, to at least corps level. It informs higher HQ that the obstacle is complete and functional. If required, units follow a report of completion with completed *DA Form 1355*, *DA Form 1355-1-R*, or scatterable minefield report and record (see *Figure B-3, page B-7*).

### ADDITIONAL REPORTS

Two additional reports that may be required at different times are—

- Report of progress.
- Report of transfer.

#### Report of Progress

During the emplacing process, the commander may require periodic reports on the work completed.

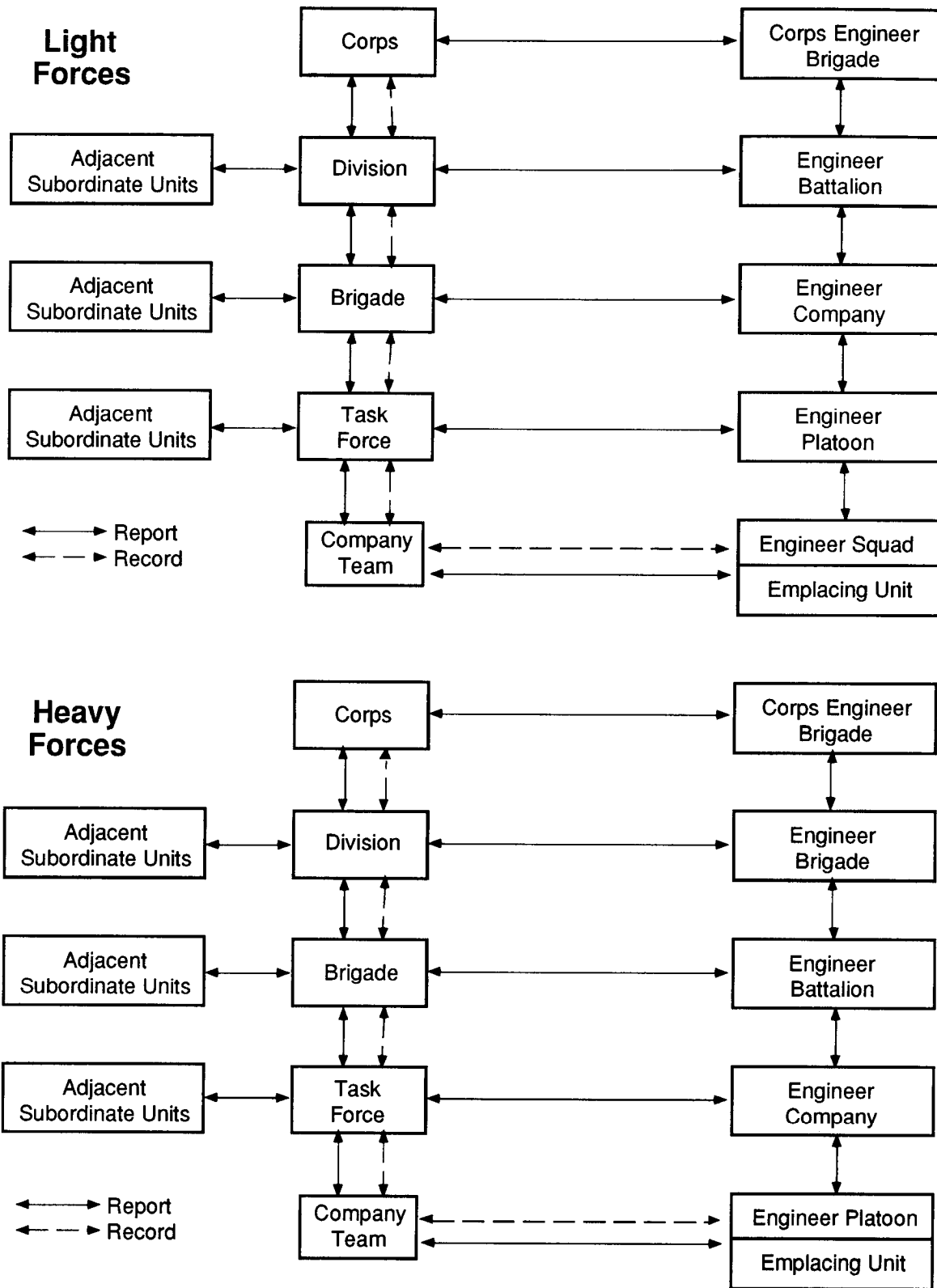


Figure B-1. Obstacle report flow.

Line	Message
Alpha	Emplacing System
Bravo	Antitank YES/NO
Charlie	Antipersonnel YES/NO
Delta	Number of Aim Points/Corner Points
Echo	Grid Coordinates of Aim Points/Corner Points and Size of Safety Zone
Foxtrot	Date-Time Group (DTG) of Life Cycle

Figure B-2. Sample of SCATMINWARN format.

Line Number	Information Required	Data (Instructions on Back)
1	Approving Authority	Commander, 3 AD
2	Target Obstacle Number	2XXX0157
3	Type of Emplacing System	Artillery
4	Type of Mine	Antitank/Antipersonnel
5	Life Cycle	081610Z - 082020OCT90
6	Aim Point/Corner Points of Minefield	MB 10102935
7		
8		
9		
10		
11		
12		
13		
14		
15	Size of Safety Zone from Aim Point	500 m
16	Unit Emplacing Mines/Report Number	2/48FA/2
17	Person Completing Report	SFC Hollins
18	DTG of Report	061645ZOCT90
19	Remarks	Not Applicable

Figure B-3. Sample scatterable minefield report and record.

### Report of Transfer

A commander transfers obstacle responsibility to another commander with a report of transfer. The relieving and relieved commanders sign this report.

## OBSTACLE RECORDING

Obstacle recording is an electronic or written communication describing the emplacement of the obstacle. Records are normally technical in nature, and there is very specific guidance on the recording of minefield. Units record tactical and deliberate protective minefield using *DA Form 1355*. They record hasty protective minefield on *DA Form 1355-1-R*. Units use the scatterable minefield report and record to report and record scatterable minefield (see *Figure B-3, page B-7*). The local command specifies how to record obstacles other than minefield.

Obstacle records contain the following information, as a minimum:

- Location of obstacle.
- Type of obstacle.
- Number and type of mines emplaced, if applicable.
- Placement of mines (surface-laid or buried), if applicable.
- Use of AHDs, if applicable.
- Location and width of lanes and gaps, if applicable.
- Description of any marking, if applicable.

The procedures for completing *DA Form 1355*, *DA Form 1355-1-B*, or scatterable minefield report and record are in *FM 20-32*.

## OBSTACLE TRACKING

Obstacle tracking consists of the following components:

- Collation of obstacle completion reports and other reports of identified obstacles, such as UXO and enemy obstacles.
- Dissemination of the collated information to friendly units that the obstacles may affect.
- Maintenance of the records that identify obstacle locations for use in planning future operations or in clearing obstacles after the end of hostilities.

The G3/S3 is responsible for tracking obstacles but is assisted by the engineer and fire support staffs. Friendly force obstacle reports go upward through operational and engineer channels. Reports of enemy obstacles may arrive through a variety of channels based on intelligence collection, maneuver contact, or other means. Normally, the staff engineer collates these reports and records and maintains the information on these obstacles.

Eventually, detailed written reports and records, down to individual obstacles, flow through channels to the corps; however, for immediate tracking, each level requires a different level of detail displayed graphically. At corps level, immediate requirements are graphics showing brigade obstacle belts. The division tracks the locations of obstacle groups graphically. The brigade plots the locations of individual obstacles on overlays. This provides enough information for immediate planning concerns. If a corps or division staff attempts to plot individual obstacles, the end result is probably an inaccurate overlay. As written reports and records arrive at corps level, the corps begins to develop a data base for future planning and eventually for clearance of all obstacles.

Reports of friendly UXO normally come from fire-support units or from Air Force or Navy aviation liaison officers. The fire-support cell normally collates these reports and maintains the record of these items.



The G3/S3 must decide how much of this information to disseminate to subordinate units. He also must decide what level of detail is necessary. Simple overlays depicting areas suspected of having large quantities of UXO, and a brief description of the UXO and its hazards, may be useful to subordinate commanders. They may choose to plan movements around those areas or ensure

that their subunits take appropriate precautions in those areas. Subordinate commanders may require more detailed information if they must move through an area where another unit (or the enemy) previously emplaced tactical obstacles. In this case, the commander may need an overlay or listing of all obstacles in the area with as much detail as is available.